# 3 Studying Geography

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## Geography
Five Themes to Help Understand the World and its People

**The Five Fundamental Themes of Geography**
Source: Michigan Geographic Alliance

**Any Questions? Email me!**
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**Now we will take a closer look at "region".**



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## Focus on "Region"

❖ **A region is a part of the earth exhibiting similar traits or characteristics.**

- ✓ A region can be **natural** or **cultural** or a unique **combination of both**.
- ✓ Helps us to bring order to a diverse planet by dividing the earth up into unique areas.
- ✓ Makes it easier to study and compare these areas by setting them apart from others.
- ➤ Regions with <u>different characteristics</u> can overlap.

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## Region

**All regions have five characteristics:**

1. **Location:** we can **find it** on earth.
2. **Spatial Extent:** we can **measure it.**
3. **Boundaries:** we can **set its limits based on selected/ observed characteristics.** *(However, most boundaries are "fuzzy" and blend into each other.)*

Map scale



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## Region

**All regions have 5 characteristics:**

4. **Categorization:**
   The three categories are:
   a) **formal** (exhibit a uniform appearance)

   b) **functional** (created by interaction or connections)

   c) **vernacular** (mental or perceptual)

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## 4a: Formal Region

An area that exhibits a uniform appearance or characteristic.

**ALSO, there are:**
Economic regions
Landform regions
Ecoregions
Agricultural regions
Cultural regions
Language regions
Urbanized regions

**Political regions** (counties) of NYS

## 4b: Functional Region

**Is created by interaction or connections.** Once the links are broken, the region disappears.

MTA Long Island Rail Road

These are a transit regions.

REGIONAL RAIL for NEW YORK

**Also, you can have a:**
Banking region
School district
International Trade Group
Cell tower zones
Theater District

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## 4c: Vernacular Region

**An area created in one's mind (mental image) or popularized by usage (conception).**

**The Midwest region is defined (perceived) differently by people.**

(a) John H. Garland, ed., The North American Midwest, New York, Wiley, 1955; (b) John R. Borchert and Jane McGuigan, Geography of the New World, Chicago, Rand McNally, 1961; and (c) Otis P. Starkey and J. Lewis Robinson, The Anglo-American Realm, New York, McGraw-Hill, 1969

**What's a**
Bible Belt
Good neighborhood
Rust Belt
SF Bay area
Child-friendly community

**How do you define or delineate "Long Island"?**

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## Region

**All regions have 5 characteristics:**

**5. Hierarchical Arrangement**
   **a) major**
   **b) minor**

**Regions within Regions within Regions within Regions within Regions within Regions within Regions.**

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## Hierarchy of Regions

**NOTE:** *There are a number overlapping regions portrayed on this map.*

**Regions within regions within regions within regions within regions.**

The State of Delaware, the Delaware shore and Rehoboth Bay ecological area are **smaller regions** within larger ones.

The Mid-Atlantic, East Coast, and North America are **very large regions** that have a variety of smaller regions within them.

**Three large overlapping regions:**
Delmarva Peninsula
Coastal Plain
Humid Continental Climate

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## Subfields of Geography

**Regional Studies** incorporates elements of **physical** and **human geography** (which create unique natural and cultural landscapes).

It uses **geographic techniques** to study them.

**This diagram is in the Handout Section of the course homepage.**

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## Geographic Methodologies

**Geographers study the earth in a number of ways.**
❖ **Opposing views or dualisms:**
   • **Physical** (natural) **vs. Human** (cultural)
   • **Topical** (themes) **vs. Regional** (areas)
   • **Descriptive** (What's there? Cataloguing, knowledge accumulation) **vs. Analytical** (Why is it there? Hypothesis testing, systematic investigations, spatial analysis)
❖ **Time reference:**
   • **Past**
   • **Present**
   • **Future**

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## Geographic Methodologies

### Geography of the Present
We study **current** conditions, interrelationships and happenings.

It focuses on today.

It goes back in time to set the scene.

It evaluates the present for future interactions.

### Geography of the Past
**Historical geography** looks at and analyzes the conditions that have led to or influenced the **actions of people over time**.

The emphasis is on *developmental processes.*

It studies **change**.

### Geography of the Future
Uses the knowledge gained from the past and present to **make assumptions** about the future.

Regional and urban planning are examples of this.

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## GEOGRAPHIC RESEARCH



1. Assess the need.
2. Collect information.
3. Process the data.
4. Analyze/interpret the data.
5. Create an output.
6. Apply to a real world situation.
7. **Back to 1:** Re-assess the need (for as many times as needed)

**This diagram is in the Handout Section of the course homepage.**

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## Geographic Methodologies

**All three methodologies** (past, present and future)

✓ **Are studied from** geographic dualisms **point of view.**

✓ **Use geographic research methods to gather and analyze data.**

✓ **Look for and analyze patterns of spatial distribution, always asking the question, WHY?**

✓ **Use cartographic methods** (mapping) **and geographic information software** and **technology** (gathering/analysis/mapping) **to portray information spatially.**

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## SPATIAL  DISTRIBUTION

**Spatial distribution is the essence of geography.**

**We need to distinguish between the following:**

❖ DENSITY

❖ CONCENTRATION

❖ PATTERN

❖ SPATIAL INTERACTION (issues of distance)

❖ DIFFUSION (issues of spread)

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## Spatial Distribution Definitions

1. **DENSITY**: the number of times something exists within a given unit (space)

   *(as people per sq. mi. or seats per 400 sq. ft. classroom)*

2. **CONCENTRATION:** grouping of density

   *(clustered or dispersed; proximity to each other)*

3. **PATTERN**: the arrangement of density

   *(as linear, rectangular, circular, centralized, random)*

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## 1. Density: the number of times something exists within a unit



| 9 Dots | 12 Dots | 20 Dots |
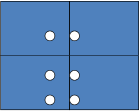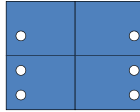
Box 1   Box 2   Box 3

**Which box has the greatest density?**
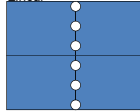
## 2. Concentration: the grouping
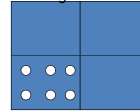
Clustered

Dispersed

Grouping refers to the proximity to each other.

**Each grid has the same density but in different concentrations.**
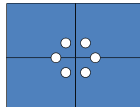
## 3. Pattern: the arrangement

Linear

Rectangular

Circular

Random

Each grid has the same density.

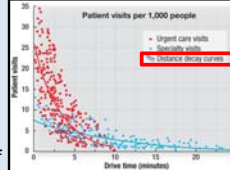However, they have different arrangements (patterns) and different concentrations (groupings) .

## 4. Spatial Interaction: Definitions

❖ **Spatial interaction** is the movement and contact between points.
  **a) Distance:** How far?
    ✓ Linear distance
    ✓ Time distance
    ✓ Psychological distance
  **b) Connectivity:** linkage; connection of points
  **c) Accessibility:** ease of movement along links
  **d) Distance Decay:** frequency of contact decreases with distance

YY

XX

How far is "XX" from "YY"? How do we determine it?
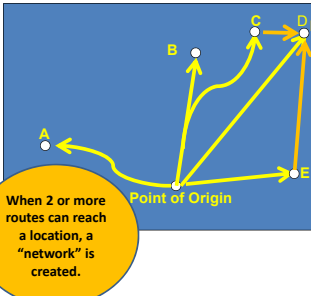
Patient visits per 1,000 people

Greatest ← Interaction → Least

## 5. Diffusion: Spread from point of origin

C  D F
B
A
Point of Origin
E

When 2 or more routes can reach a location, a "network" is created.

**We ask:**
• Why was there move-ment away from point of origin?
• What route was taken? *and*
• How did that route facilitate movement?
• Are there alternate routes to get to the same location?

**4 TYPES of DIFFUSION**
▪ Expansion diffusion
▪ Relocation diffusion
▪ Contagious diffusion
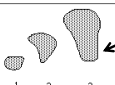▪ Hierarchical diffusion

## Types of Diffusion

**a) EXPANSION** Movement away from point of high-est concentration; there's an increase in both area and numbers.

**b) CONTAGIOUS** Contact and ex-change between adjoining areas; person-to-person contact, blending.

(a) Expansion diffusion
(b) Relocation diffusion
(c) Contagious diffusion
(d) Hierarchical diffusion
1  2  3
Origin
1
2
3

**c) RELOCATION** Migration; actual movement away to another location.

**d) HIERARCHICAL** Movement between levels – "up the ladder"; skipping areas in between (as mov-ing from the small town to big city with-out stopping at the smaller cities).

COVID-19 has used all four means of diffusion to spread worldwide.

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## Diffusion: Spread of Cholera in the U.S. 1832 and 1849

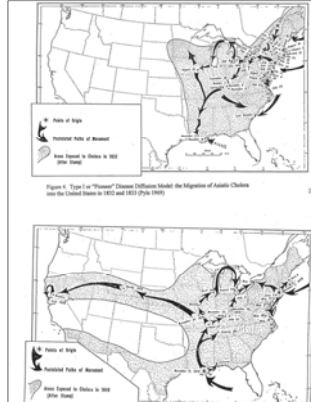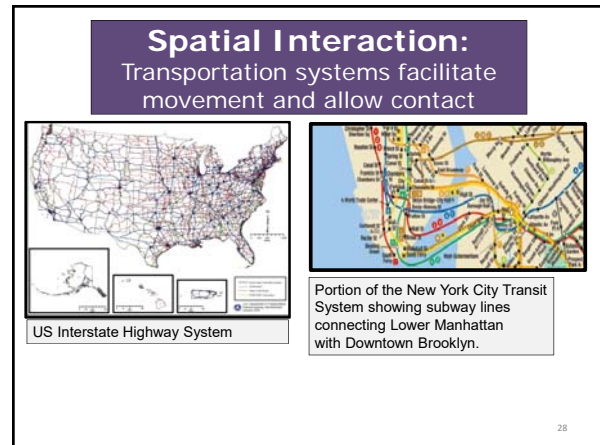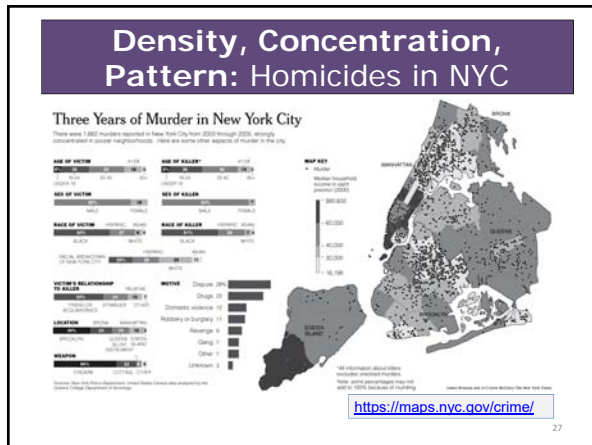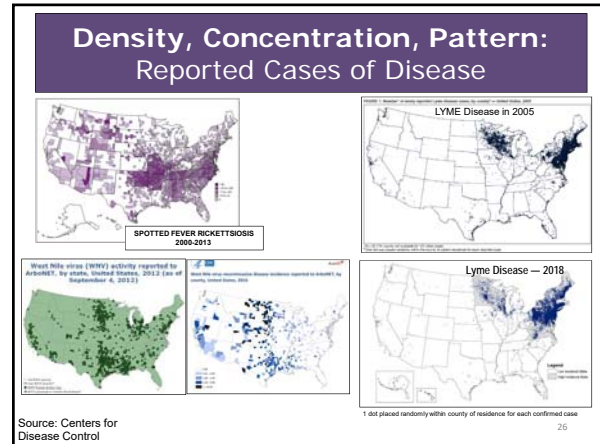**Disease spreads from ports of entry along lines of transportation.**

Examples of Diffusion


Density, Concentration, Pattern: Reported Cases of Disease


Density, Concentration, Pattern: Homicides in NYC


Spatial Interaction: Transportation systems facilitate movement and allow contact
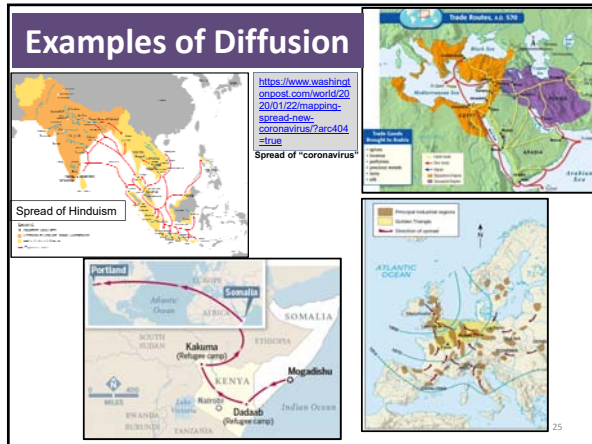

NEXT

Geographers' Tools: Making Maps